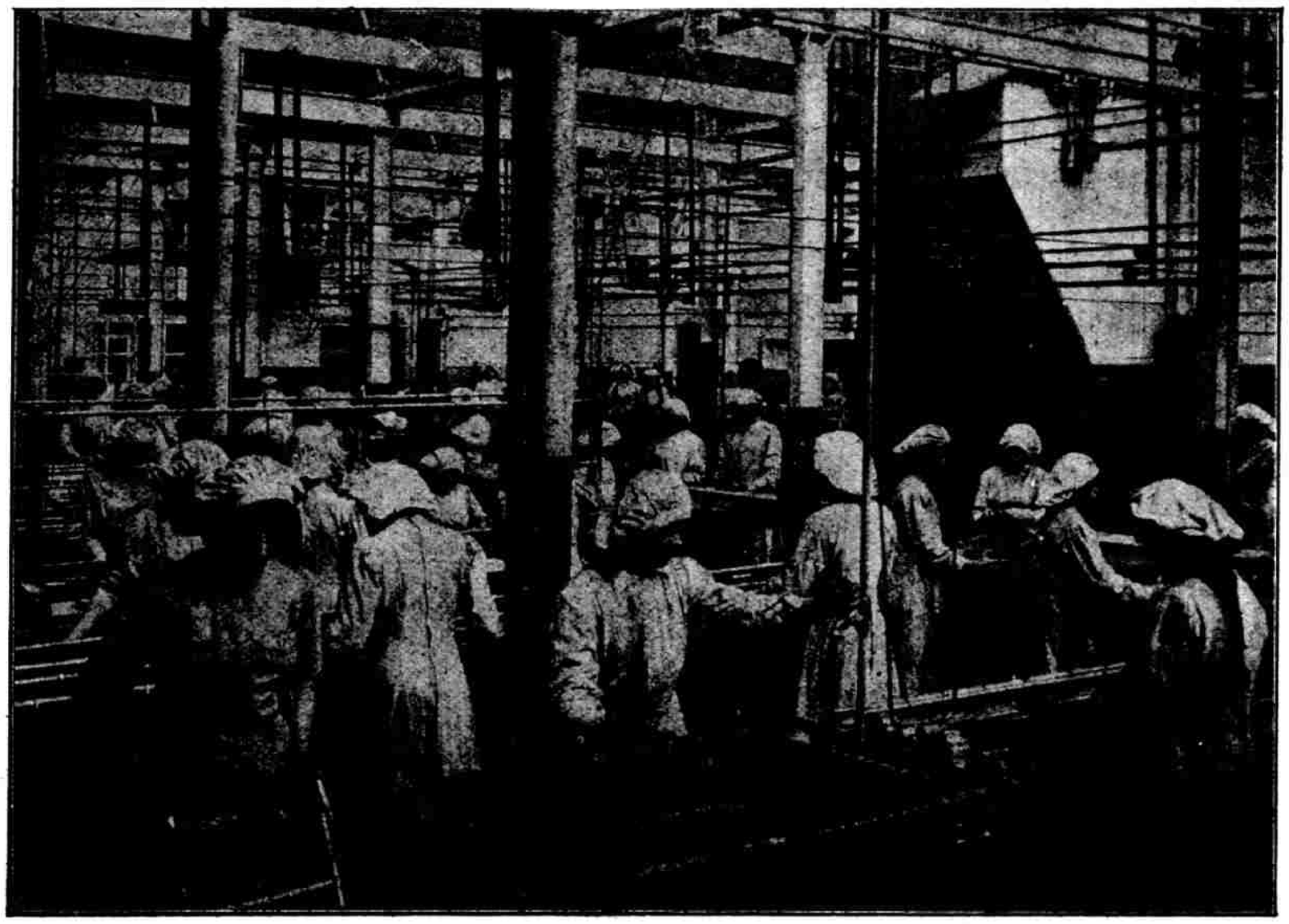
No. 13. JUNE-JULY, 1920.

MECCANO MAGAZINE

TO HELP MECCANO BOYS TO HAVE MORE FUN THAN OTHER BOYS



Meccano Factory: Electro-Plating Department

A BIGGER MECCANO MAGAZINE.

This is the last occasion in which the *Meccano Magazine* will appear in its present form. Commencing with the next issue, the size will be 11in. by 8¼in., and it will be enlarged to eight pages, and this will give us some greatly needed space to deal with the ever-increasing number of topics in which Meccano boys are interested. We should like to increase its size still further, and to bring it out more frequently, but the paper scarcity is so intense that these improvements must be left for the future.

We are quite sure that the *Meccano Magazine* in its new form will receive a great welcome from Meccano boys. It will be handier to read, will contain more matter, and will enable us to deal better with the excellent novelties which are always being introduced. Owing to greatly increased cost of production, the subscription to the new *Meccano Magazine* will be increased to 1d. per copy. A remittance of 6d. will ensure the next six numbers being received promptly, and a remittance of 1s. the next 12. We shall keep faith with old subscribers by sending them the Magazine regularly at the old rate, until their old subscriptions are exhausted, but all renewals must be on the new basis.

In order to make the *Meccano Magazine* more easily obtainable, we have now decided to sell it through our regular Meccano dealers, and the cost will be 1d. per issue. We shall publish the Magazine more regularly in future, but we are unable to say just how often yet, as this will depend upon the paper situation. We look forward, however, to the time when we shall be able to let you have the *Meccano Magazine* at least monthly, and we shall strive all the while to make it the best and most popular boys' paper in the kingdom.

New Essay Competitions

Each Essay Competition which we have run in the past has brought crowds of entries, and our readers evidently like this form of competition. We should have run more of them but they have been crowded out by other good things. However, here are three new ones which we think will be popular. The first two are for members of the Meccano Guild only, and we hope that every member will show his interest and enthusiasm for the movement by entering.

Essay Competition No. 1.—How each member can best help the movement and further its objects.

Essay Competition No. 2.—The best syllabus for the meetings of a Meccano Club during the summer months.

A first prize of a "B" Inventor's Outfit will be awarded in both the above competitions, and there will be additional prizes to members sending in essays which display special merit.

The third Essay Competition is open to all Meccano users and the subject is "Which is the more enjoyable, building a Meccano model or playing with it, and why?" The first prize is a No. 2 Meccano outfit, with other prizes for essays of special merit.

The closing date for all three competitions is August 31st, 1920. Write on one side of the paper only, about 500 words. Give your name, address and age on the back of each sheet. Address the envelope "Meccano Limited, Essay Competition, Binns Road, Liverpool."

The Life Story of Meccano

By Frank Hornby.

(*Continued.*)

When the parts come from the barrelling department, they may be said to be clean, but not chemically clean. In order to prepare them for plating they are first placed in a chemical solution which thoroughly cleanses them from every impurity, after which they are given three distinct washings through running water. After this point they must not again be touched by hand, otherwise the plating would not have proper effect on them.

The process of nickel-plating Meccano parts is an exceedingly delicate one. They are placed in very large vats containing solutions composed of various chemicals and the preparation of these chemicals requires very great skill and technical knowledge. Impure chemicals or wrong proportions would cause the whole plating process to go wrong and great damage and loss of time and materials would follow. An old solution often works better than a new one, and the workers always prefer to work with what they term a "ripe" solution. Round the inside of the vats are suspended anodes composed of pure nickel, and when a powerful electric current is driven through the solution the nickel is drawn from the anodes and deposited on the steel parts.

Each strip or other Meccano part is suspended singly on specially designed frames, and in order to secure a good durable coat of nickel, they are kept in the solution for a period of more than two hours. At the end of that time, the parts are carefully washed to remove any traces of the solution, and thoroughly dried in heated sawdust. In order to plate the millions of Meccano parts required in the year, scores of huge vats are required, and very powerful dynamos. The Meccano plating plant is one of the largest of its type in the world, and is the admiration of all visitors to the Meccano Works.

The copper rod alone, which is employed to convey the current to the plating vats, runs into miles in length and many thousands of pounds in value. Our water consumption in this department is enormous, running into several thousands of gallons per day.

The wheels and other brass parts of Meccano require special treatment in order to ensure that even and bright finish which makes them so attractive. They are thoroughly cleansed in several acid baths of varying strengths, and after being washed and dried, they are lacquered in order that they may retain their bright finish.

I would like to take you boys through our big machine department, in order that you might see the wonderful machines which automatically produce such small parts as bolts, couplings, bosses, grub screws, worm wheels, &c., and to have you look at the gear and pinion cutting machines which make our accurate gear wheels, contrate wheels, &c.

(*To be continued.*)

The Meccano Guild

A Fellowship of Meccano Boys

(*a*) To make every boy's life brighter and happier.

(*b*) To foster clean-mindedness, truthfulness, ambition, and initiative in boys.

(*c*) To encourage boys in the pursuit of their studies and hobbies, and especially in the development of their knowledge of mechanical and engineering principles.

Guild Secretary's Report

Since my report in the last issue of the *Meccano Magazine*, the splendid progress of the Guild has been well maintained. There are now more than 40 affiliated Clubs who are the proud possessors of the Guild certificate, who are holding enthusiastic and enjoyable meetings, and who are carrying on their work, both outdoors and indoors, right through the summer, whilst some hundreds of new Clubs have been formed or are in process of formation and will be affiliated in due course. The Guild membership now runs into many thousands, and I have not the slightest doubt that soon it will run into hundreds of thousands. My one great desire is to make the Guild known to every Meccano boy in the country, to let them know what its objects are and how it can bring nothing but good to them and to all who are connected with the movement.

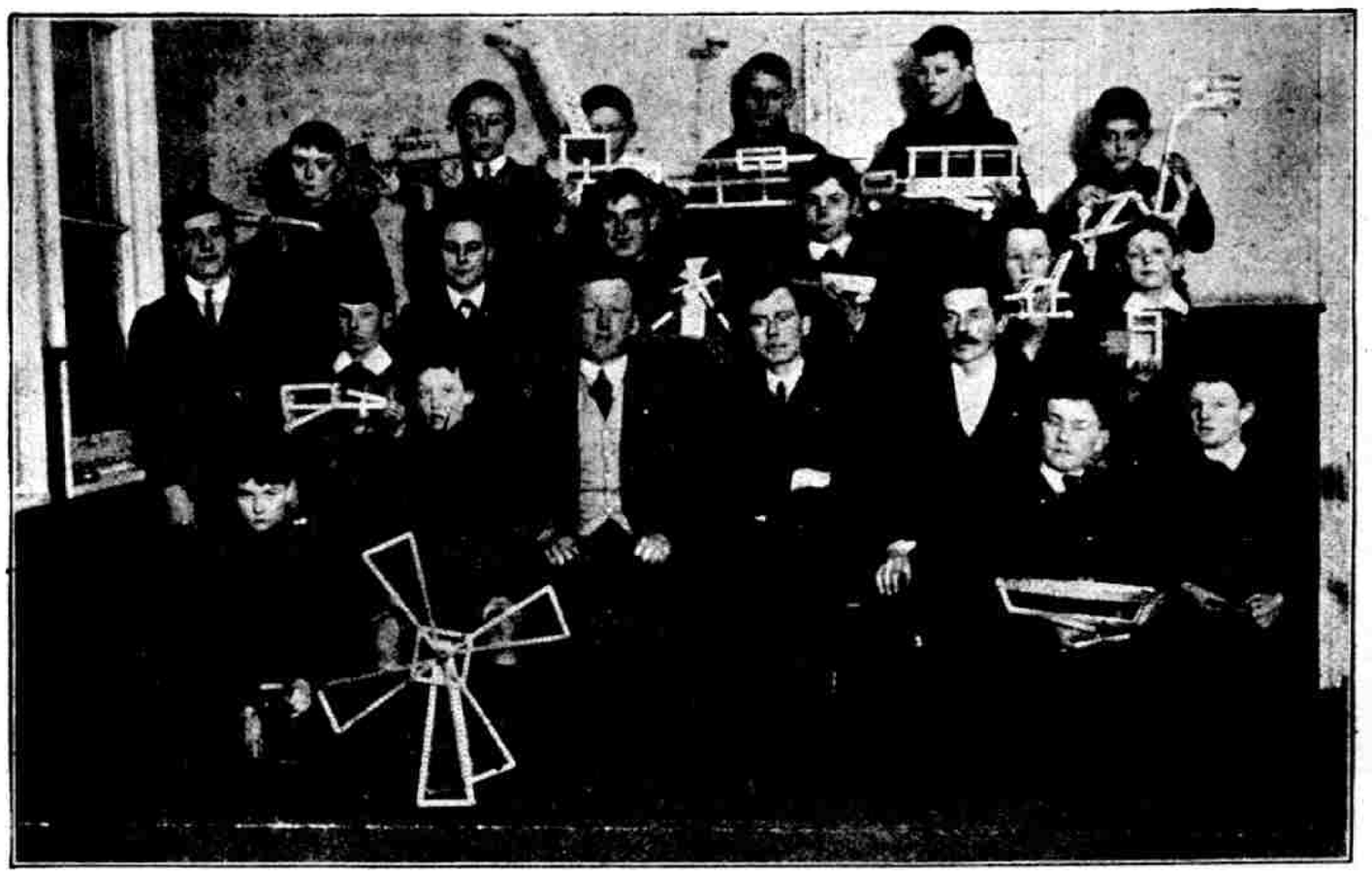
It is the first duty of every member of the Meccano Guild to make the Guild and its objects as widely known as possible, and in order to stimulate and help you in this I shall announce in the next issue of the *Meccano Magazine* a great Recruiting Campaign which will run through the whole of the coming winter-months. I shall tell you how you can do a great service to yourself and to the Guild, and you may be quite sure that those who render the best service in this way will be singled out for special distinction.

In our next few issues I shall be able to say more about the definite advantages and privileges which both individual and Club members of the Guild will possess. Let me say, however, on this point, that no privileges are of any value unless they have been earned and worked for, and it is along these lines that we shall lay our plans.

A very large number of boys have written to me expressing approval of the idea of having a small Meccano Guild certificate suitable for framing and hanging in a bedroom, and have expressed anxiety to possess such a certificate. This matter is now under careful consideration and a decision will be arrived at by the time I make my next report.

I am pleased to tell you that many Meccano Clubs have taken advantage of my offer to provide special Meccano models on loan for exhibition and demonstration purposes, and it is evident that very great interest was taken in these models by the Club members. I am quite sure that the study of these special models will be a great feature at many Club meetings during the coming season.

You will have noticed that in another part of this issue the Editor tells you that future issues of the *Meccano Magazine* are to be enlarged, and this will give me, I hope, much-needed space to tell you more of the Guild's activities than is at present possible.



BRIGHTLINGSEA MECCANO CLUB.

The entries for the Guild Essay Competitions are coming in splendidly and every member, whether he belongs to a Club or not, should send his effort along. Remember if you are a Guild member you may enter all three Competitions.

I have not yet had reports from a number of Clubs for last session. The importance of sending in reports regularly at the end of each session cannot be too strongly emphasized and Secretaries who have not yet done so should let me have their reports immediately.

Club Notes.

I have great pleasure in publishing in this issue a photograph of the Brightlingsea Meccano Club, which is one of the most successful and progressive among the affiliated Clubs. A short time ago the Club lost the services of its able secretary, the Rev. A. B. Grosvenor, who has been called to another sphere in Norwich, where I am happy to say he is still maintaining his interest in the Guild. At a pleasing little function Pastor Grosvenor was presented with a handsome enlargement of the Club photograph. Master W. W. Porter, 26, Church Road, Brightlingsea, is now the secretary.

CLAYGATE MECCANO CLUB.—PRESS ANNOUNCEMENT: "The recently-formed Claygate Meccano Club held its first exhibition on Saturday (April 3rd), when at the Council Schools quite an interesting display of models made by the boys was seen. Considering the ages of the exhibitors—ranging from 8 to 13 years—the ingenuity and skill shown in the building of the models was remarkable, and was commented on in terms of praise by the many residents who visited the exhibition. Mr. J. W. Haynes, the Leader of the Club, and Mr. Brittnel, explained the models to the visitors. Donations placed in the collecting box amounted to £2. 1s. 8d. which is to be devoted to meeting the expenses of the exhibition and to promoting competitions.

Affiliated with the Meccano Guild, the chief object of the Club is to develop the knowledge of the members in mechanical and engineering principles, and Mr. Brittnel, of Vale Road, who has had much experience with machinery, is assisting Mr. Haynes with the Club. Meetings are held every Saturday evening at the Council schools, and residents are invited to see the boys at work. Recently there was an Essay Competition among the members in which the prize-winners were: 1 F. Nightingale, 2 G. Carpenter, 3 H. Carter."

Mr. Haynes and Mr. Brittnel are to be congratulated. It will interest other Clubs to know that the Claygate boys are to have a char-a-banc trip to Brighton very soon.

CIRENCESTER GRAMMAR SCHOOL M.C.—The report received from the Secretary, Master H. W. Inward, is very well drawn up, and shows the Club is established on sound lines. Through the summer months, the secretary hopes to arrange natural history excursions, and visits to the gas and electricity works, and he will also contribute notes to the school magazine on the work of the Club. The finances of the Club are in quite a good state.

HOLY TRINITY M.C.—The Holy Trinity Meccano Club has just completed another very successful session—Model Building, Lectures, Competitions, and an Outing to Barnet and Hadley Woods being among the more prominent features. The Club also assisted in a sale of work, contributing £2. 16s. 8d. (which is £1. 5s. 2d. more than last year) to the funds. The membership now stands at 21, and the treasurer has a good balance in hand.

LEAMINGTON M.C.—Under the capable and enthusiastic leadership of Mr. F. W. Bull, the Leamington Club, affiliated in January, has jumped straight to the front rank. On May 4th, 5th, and 6th a grand bazaar called "Ye Olde Englyshe Fayre" was held in aid of All Saints' Parish Funds (Leamington) and the Meccano Stall run by the Leamington Meccano Club proved a great success. Over 30 large models were on view, and there were about 20 boys always in attendance. A few days later, the members paid a visit to the local gas works to study the machinery and apparatus.

Club Notes (*Continued*).

NONINGTON M.C.—This school Club has made a very promising start under Mr. Eveleigh, one of the masters. Meetings are held each Monday evening and in addition to ordinary model building, there are lectures and competitions. Master B. Munting, through whose efforts the Club was formed, has unfortunately resigned his office as secretary; the duties have been taken over by Master K. Leppard.

NORWICH ENTERPRISE M.C.—This new Club has been established at the instance of the Rev. A. B. Grosvenor who recently left Brightlingsea for Norwich. As it was only affiliated in March, there has not been much time for development, but without doubt we shall hear more of the Club next season.

ST. ANN'S MISSION (WHITLEY BAY) M.C.—Miss Draycott has our heartiest congratulations on being the first lady to have her Club affiliated with the Guild. As energy and enthusiasm invariably lead to success this Club has a splendid future.

SHETTLESTON M.C. (GLASGOW).—The Shettleston Club is making splendid progress under Mr. J. McGlynne's leadership. Mr. McGlynne has got in touch with Mr. Jack, a Glasgow Meccano Dealer, and while Mr. McGlynne sends models made at Club meetings for exhibition at this gentleman's store, Mr. Jack helps by advertising the Club in his windows and allowing a small commission for the models. Such mutual co-operation is very valuable, and the example might be followed by other Clubs, with very beneficial results.

PORTSMOUTH GRAMMAR SCHOOL M.C.—The members of this Club are very keen, and Master B. C. Richards, the secretary, has a lively sense of his responsibilities. He procures a supply of *Magazines* for his members and asks for all the latest literature which he distributes among members. He also arranges football matches, and one with the neighbouring Gosport Meccano Club ended in a win for the latter by 2–1. Master Richards hopes to see the tables turned at the next match.

Mr. Burnham, the Club leader, acknowledging the receipt of the Certificate of Affiliation, wrote: "Please accept our Club's best thanks—also mine. The boys were quite excited when I presented the Certificate to them at the last Club meeting, and they have asked me to thank you. They feel quite proud of it, and they are very keen in all the Club's work. We are forming a cricket club in connection with our Meccano Club, and we already have a football club."

WHITLEY AND MONKSEATON M.C.—The last report from Mr. Noble shows that a tremendous amount of work has been put in by those responsible for the running of the Club. A very successful Whist Drive and Dance organised by the honorary members with a view to further supporting the Club and providing funds for the Exhibition of Models was held on March 12th. A novelty dance, The Meccano Valse was won by the Secretary and his partner, the youngest couple on the floor.

Two competitions have been held and all prizes were given in Meccano parts. Also five papers have been read by members to their Clubmates during the session.

The membership of the Club now stands at 56 active members, six vice-presidents, 20 honorary members—total 82; an exceedingly fine record.

THE WYNBERG (SOUTH AFRICA) M.C.—Master A. J. Lewis, secretary, has forwarded a detailed and interesting report on the Club's first session. In addition to the usual business meetings and model building, a pleasant evening was passed making designs with the Meccanograph, and the Club was favoured with a visit from Mr. Williams, a gentleman who was formerly in the seaplane service. He inspected and commented on models of Aeroplanes made by members, and also told the boys different mechanical contrivances that were used during the war. An interesting programme has been arranged for the next session, and the members hope to hold an exhibition this year.

"WALKLEY" MECCANO CLUB.—This Club has recently been formed under the leadership of Mr. G. Angell. Meetings are held every Wednesday evening in the Ebenezer Schoolroom, South Road, Sheffield, and an interesting programme has been arranged for the summer months. The membership now stands at 23, and as there is accommodation for 50, new members are cordially invited.

Club Lists.

Owing to pressure of space, we are unable to publish the usual lists of newly-affiliated Clubs, and the names of boys who have formed or intend forming Clubs. Copies of these lists may be had on application to the Guild Secretary.

On Guilds.

(*Continued*).

There were rules to ensure fair play in business, and no brother could employ the servants of another brother without his express consent; no brother was allowed to erect a stall to display his wares in the street and so take advantage of one less fortunately placed.

Then there were rules governing apprenticeship and employment. A workman newly arriving in a town had to prove his skill thoroughly before he was permitted to join the brotherhood; a youth was obliged to serve several years' apprenticeship before he was admitted. Nor were the Guild rules for the benefit of members only. The holder of an important office was the "Searcher," whose business it was to search for false weights and scales and bring any offenders to justice.

Each member held himself directly responsible for the actions of his fellow members, and this naturally led each one to very carefully consider his conduct. The rules and regulations were drawn up on the vote of the majority. They were framed for the good of the community as a whole, and for the religious and moral good of the individual. The rules demanded that each member should lead an upright honest life, giving succour to anyone in distress (particularly a fellow member of his family) and doing his utmost to live up to the high ideals of the Craft.

Should a member find his business failing through the markets going against him, it was the duty of his fellow members to help him and save him from going to moneylenders, who charged exorbitant interest.

A determined effort to break down class distinctions was made through the introduction of the apprenticeship system, for no matter how rich and influential a man was, he could not buy the right of entry to the Guild for his son; his son must serve his apprenticeship, live, sleep, have his meals and his games with his fellow apprentices. Promotion to the various offices in the Guild was given on merit alone, and it was possible for the son of the poorest parent to gain the highest honours the Guild had to bestow.

As in the case of the Merchant Guilds, the interests of the Craft Guilds widened, and in addition to the ordinary commercial and social obligations, they took a deep interest in religious and educational matters.

Not only did they strive to make the church services beautiful, but they spent endless time, energy, and wealth in beautifying the buildings in which the services were held, and many churches and chapels bear evidences of their efforts to this day. In some of the oldest there are wonderful examples of wrought-iron work, marvellous wood carvings and tapestries, and priceless specimens presented by the old Goldsmiths and Silversmiths.

This religious tendency is still reflected in the Church, for to-day there is scarcely a church or chapel in the kingdom without a Guild of some sort or other. In educational affairs they spent huge sums in founding and endowing schools and colleges, and they usually engaged the very finest masters it was possible to get.

The Guilds, in the oldest and best sense, received their deathblow in the reign of Henry VIII. A Bill was introduced in Parliament authorising the king to acquire all the property and lands belonging to churches and the Guilds.

(*To be continued*).

EDITORIAL.

A Bigger M.M.

The principal complaint which my readers have made against the *Meccano Magazine* is that it has been too small. This is going to be rectified now, and the next number will appear in quite a new form. The size of the page will be a little smaller but there will be eight pages instead of four. The shortage of paper is, if anything, worse than ever, but fortunately we have secured a good supply, and there is no danger of Meccano boys being deprived of the latest Meccano news.

The Meccano Guild.

The Guild is going ahead at a great pace, and new Meccano Clubs are being formed all over the country. The boys are overcoming their difficulties of securing Club Leaders and suitable rooms for holding their meetings splendidly, and they report enthusiastic meetings, interesting lectures, exhibitions, and successful concerts.

The Big £200 Competition.

The entries for this Competition have been enormous, and the work of adjudication is proceeding as rapidly as possible. We hope to be able to announce the results and despatch all the prizes, in the course of the next few weeks. In our next issue, another big competition will be announced on new lines, which will give ingenious Meccano boys of all ages a chance of winning good prizes.

Meccano at the Jamboree.

The Jamboree which will take place at Olympia in London during the last week in July will be a big event in the Boy Scout movement, and I am glad to announce that Meccano will play a prominent part in it. In addition to a fine Meccano stand at the entrance to the arena, which will be a rendezvous for all Meccano boys who visit the Jamboree, a number of expert Wolf Cubs will be at work all day in the Annex, showing their skill at building Meccano models. The new Meccano electrical parts will be demonstrated at our displays.

Electricity and Meccano.

Electricity will figure largely in the future of Meccano. The new electrical outfits, which are well in hand, will make it possible for every Meccano boy to make his own electric toys. I shall be able to give you full particulars in our next issue.

Meccano Clockwork Trains.

For a long time now we have been urged by the Government and by the public to produce clockwork trains to replace those which used to be imported from the Continent. We have spent much time and thought on these goods, and we are now ready to supply a range of beautiful trains, which will add much to the fame of our factories. The clockwork mechanism is excellent and every train set has the Meccano guarantee behind it.

The Hornby Train System.

We are very proud of this fine clockwork train system, and it will be a great favourite amongst boys. It is built on the Meccano principle, and any damaged part may be instantly replaced by the user himself. Like all Meccano products, it is strong and durable, superbly finished, and absolutely reliable.

The Editor

OUR MAIL BAG

The Editor has a little talk in this column with his Meccano boys. Whether he has space to reply to them all here or not, he is always glad to hear from them. He receives hundreds of letters each day and only those which deal with matters which are likely to interest other Meccano boys can be dealt with here.

Correspondents will help the Editor if they will write on one side of the paper only.

E. Bonal, Manchester.—We have pleasure in publishing your hint to Meccano boys, and we feel sure many will find it useful. "To prevent the cord from slipping over a pulley wheel, rub it with resin—the kind used for violin strings." We hope that by now you have been fortunate in obtaining a suitable Club-room.

Stanley Brewer, Bletchley.—So glad to hear you like receiving letters from us—the feeling is mutual. The "letter exchange" for Guild members progresses, and you will very likely soon see it established, and in working order.

James Besant, Liverpool.—What a hustler you are! always in a hurry. It's a good characteristic though, and we expect to hear more from you as time goes on.

M. S. Edwards, Gt. Crosby.—You seem to be making good progress with your Club, and it should soon be ready for affiliation. Certainly get your chum's mother to accompany you on your rambles, and any other parents or friends too—the more the merrier, and your outings will benefit considerably without doubt.

B. Hardy, Market Hill, Armagh.—We quite agree with you that every boy loves Meccano and,

"With Meccano he will play,
Happy with it all the day."

As you are unable to form or join a Club, look out for schemes for individual members in future numbers of the Magazine.

Court, Newbury.—We can quite understand your disappointment at not receiving the *Meccano Magazine* oftener; it is shared by thousands of other boys, not to mention ourselves, and you can be quite sure that as soon as some of the difficulties connected with paper and printing disappear, the *Meccano Magazine* will be bigger and will appear much oftener than at present.

Frank Whitehurst, Bollington.—

"There was an old woman who lived in a shoe
She had so many children, she didn't know what to do.
So she bought them Meccano, and now just you see
They're thanking their stars there's a Mr. Hornby."

Quite good Frank, and as Meccano is so popular in the village we expect to hear soon that the Meccano Club is in full swing.

S. J. Burge, Bristol.—We have often had letters telling us what a boon Meccano is to boys who are bedridden. Your appreciation of the hobby on behalf of Deaf and Dumb boys reveals once more that Meccano leaves all other toys behind in the matter of giving pleasure and joy to its devotees.

S. Malby, Clacton-on-Sea.—We hope you will be successful in establishing a Club in Clacton, and also in convincing your Meccano dealer of the necessity of having a good stock of spare parts. Don't forget to let us know how you go on.

R. Wormersley, Worsley.—Your master is quite right when he says "If you are not progressing, you are going backwards in comparison with the times, even though you are standing still." We note that you are neither standing still or going backwards, but doing all you can to help the cause of the Guild. Good luck to your efforts both in this direction and in the Competition.

John Bleasdale, Manchester.—So you too think R. G. Good's proposal is a "Good" proposal—we agree!

Mr. C. C. Westhorpe, Manchester.—Many thanks for all the kind things you say about Meccano. We can quite understand you are as keen and interested in model building as the youngsters—quite a lot of fathers get the same way. If you can spare the time, why not organise a little Club for your boy and his chums? We will give you all the help you need.

J. C. Lockhart, Handsworth.—Yours is the first Club we have heard of that has an adult Club Leader, and a proper Club-room, yet is short of members. What *is* the matter with the boys of Aston, Handsworth, and Lozells?

Alan C. Young, Folkestone.—If you have built your competition model as well as you have compiled your verses, we shall probably find your name in the list of prize-winners.

"There's nothing like Meccano
To drive your pains away;
And once you've made a model,
You make one every day.
* * * * * *
There are lots of toys to play with,
Of all shapes and sizes;
But the best of all is Meccano
Which you play with, and win prizes."

Tom Thomson, Kilmarnock.—"Although sometimes I feel rather lonely as there is no Club in town, nor any Guild member I know, yet I delight in the *Magazine* and my badge makes me feel as if I were beside all the members of the Guild. I wear it on all occasions and try to live up to its principles."

That's the right spirit, and if you wish to get into touch with other Meccano boys, we shall be delighted to send you one or two names and addresses.

Master Mould, Tipton.—Congratulations on winning the first prize in the Novelty Section of the Fancy Dress Carnival at Messrs. Butler's Works. We expect you will be directing your ingenuity towards the Big Meccano Competition next, and we hope you will be equally successful.

AMATEUR WIRELESS TELEGRAPHY.

The following extract is taken from a letter written by a very enthusiastic Meccano boy, Master Cyril T. Booth:—

"I should be very much obliged if you could put me in communication with a Meccano boy who is also a wireless amateur. I daresay some of the boys who wrote to you respecting the new Electrical sets you intend putting on the market, have mentioned wireless to you. Personally I find Meccano a help to me when building the apparatus. A very good frame aerial can be made, pivoted at top and bottom, to turn in the direction the best signals are obtainable. Of course I do not use the wave method, as it is necessary to have a license for this, and there are many restrictions against amateur wireless stations; I use the 'induction' method, with which I have got good results up to 50 yards, using high tension current through the aerial coil. If any Meccano boys would like to hear about how to make this, I shall be pleased to tell them."

Any boy interested in the subject wishing to correspond with Master Booth should send the Editor his name and address, together with a brief account of his experience in wireless.

Meccano Inventor's Accessory Outfits.

Every Meccano boy should know what hours of fun and pleasure are stored up in these splendid outfits. They increase the scope of Meccano enormously. They contain all the new Meccano parts which have been invented during recent years, none of which are in the regular Meccano Outfits. Every model in the Meccano manuals can be greatly improved by their use, and they are an absolute necessity in building and inventing new models.

"A" INVENTOR'S OUTFIT. Contains a set of big 3in. wheels, 2in. pulley wheels, the new and decorative braced girder, sprocket wheels and chain, for giving a positive non-slip drive, new gear and pinion wheels, rods and washers. Price, 10s.

"B" INVENTOR'S OUTFIT. Contains a splendid assortment of the latest Meccano accessory parts. Bevel gears, 1in. gear wheels, flat plates (four sizes), double angle strips (four sizes), octagonal and strip couplings, threaded cranks, triangular plates, screwed rods, curved strips, architraves, face plates, rack strips, girder frames, hinges, buffers, and train couplings. Price, 25s.

Meccano Manuals of Instructions

There are two Meccano Manuals of Instructions, and no Meccano boy is properly equipped unless he has them both. Book No. 1 is the regular manual which goes with the main Meccano outfits. It contains illustrations and full instructions for making 326 fine models; some of the models have been designed by our own staff of experts, and others are prize-winning models contributed by Meccano boys, from every country in the world. Price 2/6 (postage 3d. extra).

Meccano Manual, Book No. 2, has only just been published, and it contains illustrations and instructions for building 100 entirely new models, very many of them prize winners. It contains Tanks, Guns, Submarines, Searchlights, and other warlike models; also a new series of simple and intensely-interesting scientific experiments which any boy can make and which impart a lot of useful knowledge. Price 1/3 (postage 2½d. extra).

Prices of Meccano

No.				
0	Outfit with full instructions for building			6/-
1	do	do.		10/-
2	do.	do.		20/-
3	do	do.		30/-
4	do.	do.		50/-
5	do.	do.	(Carton)	70/-
*5	do.	do.	(Wood)	100/-
*6	do.	do.		180/

* In well-finished cabinet with lock and key.

Accessory Outfits

No.							
0a	converting a	No. 0	into a	No. 1	..		5/-
1a	do.	do.	1	do.	2	..	11/-
2a	do.	do.	2	do.	3	..	12 -
3a	do.	do.	3	do.	4	..	22/-
4a	do.	do.	4	do.	5	..	17/6
5a	do.	do.	5	do.	6	(Carton)	65/-
5a	do.	do.	5	do.	6	(Wood)	95/-
Inventor's Outfit			...	...	...	...	10/-
Meccano Clockwork Motor			...	...	...		12/6

Each Meccano outfit is complete with all parts and tools necessary for building models. Full instructions are included and the youngest boy can commence to build at once without study. An accessory outfit may be purchased at any time, enabling bigger and more interesting models to be built. Additional parts may also be purchased separately at prices given in our published lists.

Remember that though boys play with Meccano for pleasure, and though they get more genuine fun from it than from any other toy, it also gives them a sound knowledge of engineering. Through playing with Meccano, many a bright boy has been started on a prosperous career in one of the most important and profitable professions—engineering and mechanics.

PUBLISHED BY MECCANO LTD.,
BINNS ROAD, LIVERPOOL.
Printed by Taylor, Garnett, Evans, & Co., Liverpool, Manchester, and London.